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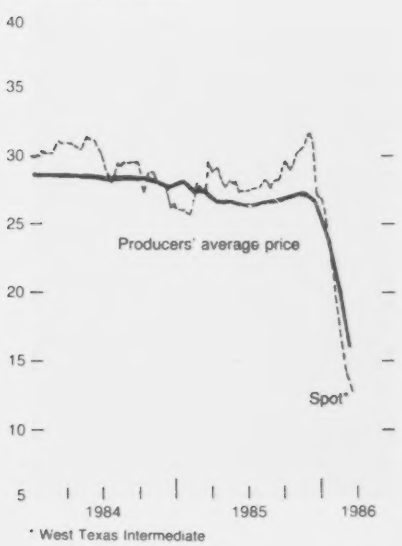
Chart 1

Oil prices

dollars per barrel



* West Texas Intermediate

Oil and the dollar: risks and opportunities

The last several months have witnessed dramatic changes in the key international prices — for oil, capital, and the dollar. In less than four months crude oil prices have plummeted more than half in the bellwether spot and forward markets (see Chart 1). Their message has inspired a certain euphoria in the bond and stock markets — helped along by perceptions of a declining trend in U.S. budget deficits, with or without Gramm-Rudman. Notwithstanding some stickiness in U.S. short-term interest rates, yields on long-term U.S. Treasury bonds have plunged below 8% for the first time since 1978 and now are 275 basis points lower than last autumn.

The currency markets have interpreted the oil price collapse as bullish for Japan and Europe, and in turn bullish for the yen and mark while bearish for the dollar. From its peak of February 1985 the dollar now has fallen over 30% against both the yen and mark (see Table 1). However, the weakness of Canada's currency, which receives a 30% weight in the index, has held the dollar's decline on a trade-weighted basis to 23% from the peak and to only 12% from its 1984 average.

The price shocks of 1986 warrant reassessment not only of the global economic and financial outlook but also of policy advice. This article first focuses on the forces now at work to rectify the profound demand-supply-capacity imbalance in oil markets; second, given the present shortfall of industrial-country economic activity below potential, on the near-term implications of the declines in oil prices, interest rates, and the dollar for inflation and economic growth; and third, on how much further the dollar may have to fall to meet the medium-term imperative for correction of the yawning U.S. trade and current account deficits, as well as the outsize surpluses of Japan and Germany.

Lower oil prices open up a rare window of opportunity for the industrial countries. At the economic summit in Tokyo this spring, and through the ongoing forum of the Group of Five (G-5), they should be working to exploit, rather than stifle, the new opportunities for stepped-up and noninflationary economic growth. At the same time, they have to promote much-needed reduction of the U.S. external imbalance. These objectives are achievable in principle. But they will go unmet in practice unless the new pragmatism embodied in U.S. Treasury Secre-

Table 1

Dollar exchange rates

units per dollar, except as noted

	Mar 21, 1986	% change from 1984 average	Feb 25, 1985	Dec 31, 1985
Nominal effective	108*	—12	—23	—6
Real effective	102*	—14	—24	—7
Dollar vis-à-vis				
Japanese yen	176	—26	—33	—12
German mark	2.25	—21	—35	—8
French franc	6.92	—21	—34	—8
British pound	1.50**	—11	—30	—4
Italian lira	1530	—13	—29	—8
Canadian dollar	1.40	8	0	0

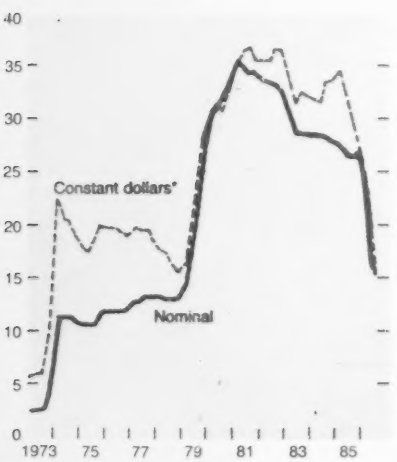
*1980-82=100.

**Dollars per pound.

Chart 2

Oil prices: in nominal and constant dollars

dollars per barrel



*At constant prices of early 1986, deflating the nominal price by OECD wholesale prices of manufactures in dollar terms.

tary Baker's twin initiatives last fall is carried forward into equally pragmatic reconsideration of existing policy positions in Japan and Europe, not least to assist restoration of growth in Latin America and other problem LDCs.

Oil prices

In thin spot and forward trading, oil prices fell below $12 in early March from over $30 last November. Prices realized by producers have declined more gradually, from over $27 to an average of around $16 during the same period. In constant dollars, producer prices now are under the average levels of 1974-78 following the first oil shock (see Chart 2).

The break in prices was sudden but not unexpected. Oil production capacity has exceeded demand for over five years — currently by some 10-11 million bpd, equivalent to almost 25% of 1985 free world consumption. Until last year, the excess was withheld from the market by OPEC production cutbacks, formalized through quotas.

This strategy contained the decline in oil prices during 1981-85, but also caused the 1986 break in prices. The OPEC attempt to maintain prices at high levels — strengthened further in real terms by low world inflation and by the dollar's appreciation — widened the gap between oil demand and production capacity. Free world oil consumption fell slightly between 1982 and 1985 With non-OPEC supplies growing there was less and less room for OPEC production (see Table 2). By 1985 its crude output was down to 16 million bpd, almost 50% below the 1979 peak and less than 60% of capacity (see Chart 3); OPEC met only 38% of free world consumption, down from 60% in 1979. As a result, despite import cutbacks, the over $100 billion OPEC surplus of 1980 was transformed into a deficit from 1982 onward.

Saudi Arabia bore the brunt of the reduction in total OPEC output by offsetting above-quota production elsewhere. By mid-1985, Saudi output was only 2.5 million bpd, 8 million bpd below the 1980-81 peak; it met just 6% of free world oil consumption, less than one-third its 1981 share; it held 60% of world excess capacity; its current account had swung from surpluses on the order of $40 billion in 1980 and 1981 into deficits of over $15 billion per annum since 1983.

Altogether, OPEC policies accomplished the extraordinary feat of squeezing out the lowest-cost oil producer with the largest world oil reserves to the benefit of high-cost producers with limited reserves. Had the post-1981 demand trends and OPEC strategy persisted, Saudi Arabia effectively would have found itself out of the oil-exporting business within a few years. Saudi Arabia therefore changed its oil policy. Last June it announced that it would no longer be the swing producer, but would instead seek to produce its full quota of 4.3 million bpd. It abandoned its long-standing policy of fixed crude oil prices, in favor of flexible prices determined on a netback basis by market demand for refined petroleum products. The new policy enabled Saudi Arabia to rebuild market share, reaching its quota by late 1985 and prompting the rest of OPEC to abandon all production restraint. The break in prices ensued.

The future of oil prices depends on the pace of reduction in the structural imbalance among demand, supply, and production capacity. The pace will be vitally influenced by the policy responses of the major oil-consuming and producing governments. Their responses still are far from clear.

Table 2

*Oil demand and supply**

millions of bpd

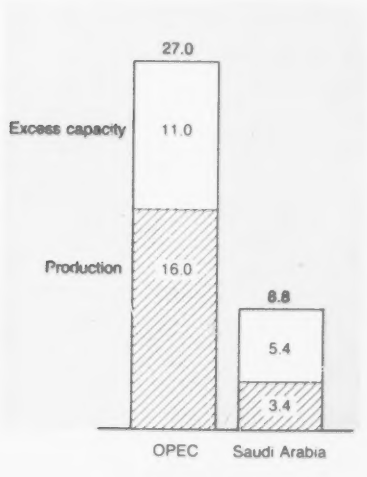
	1979	1982	1985	1986
Consumption	52.4	46.0	45.6	46.2
OECD	41.6	34.6	34.0	34.5
LDCs	10.8	11.4	11.6	11.7
Stock changes	1.3	—1.1	—0.1	0.0
Non-OPEC supply	22.1	25.3	28.3	28.2
OPEC capacity	35.2	30.0	27.0	27.0
OPEC production	31.7	19.8	17.3	18.0
Crude oil	30.9	18.6	16.0	16.5
% of capacity	88	62	59	61

*Excluding Communist countries. Only their net oil exports to the West are included in non-OPEC supply.

Chart 3

OPEC production and excess capacity in 1985

millions of bpd; crude oil only



Demand is quite insensitive to price changes in the short term. When, as in recent months, price declines engender expectations of further declines, oil inventories are drawn down and overall oil demand initially falls. However, oil demand responds positively to price declines after a time and is affected further by economic growth rates and policies in major consuming regions — particularly the industrial countries that account for 75% of free world oil consumption. As noted, between 1982 and 1985, despite annual economic growth of 3.2% in the industrial countries, free world oil consumption declined slightly. At the much lower prices of today, there is bound to be a positive response in oil consumption.

Recalling past experience, the decade prior to the first oil shock witnessed oil consumption growth in excess of 7% per annum — based on OECD economic growth averaging 5% per annum and oil prices in constant dollars more than 60% below present levels. Such a rebound in oil consumption does not appear likely today, not only because of higher prices and lower growth rates, but mainly because of significant structural changes in oil and energy consumption. Between the two oil shocks of the 1970s, when real oil prices fluctuated just above today's levels and OECD growth was 3% per annum, oil consumption increases averaged 2½%. Under present conditions, should constant-dollar producer prices remain in the $16-$18 range for some time to come and OECD growth average slightly above 3%, oil consumption increases of just under 2% per annum can be expected. Such increases, without any changes in supply, would eliminate the excess production capacity in about a decade.

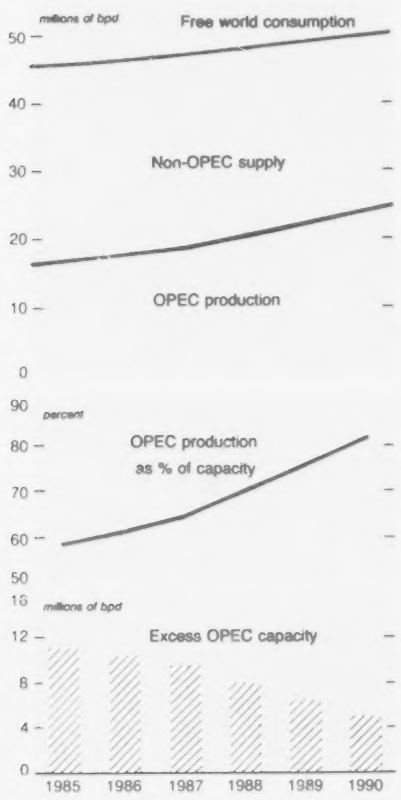
Supply also takes time to respond to price changes, with the decisions of certain oil producers especially influential. Production costs are not uniform, nor are excess production capacity and reserves distributed evenly. In general, industrial countries are the highest-cost oil producers, but their production runs at capacity and they have less than 10% of free world oil reserves. The Middle East countries have the lowest production costs, but they hold over 80% of the present excess capacity and 65% of free world reserves. (The rest of OPEC holds the remaining excess capacity.) In all regions, production costs in the existing fields that determine short-term supply are significantly below those of investment in the new production facilities that determine long-term supply. For example, current oil production costs are mainly under $12 per barrel in the industrial countries, with the bulk at $7-$8 and below; in the Middle East, costs are well under $5. The cost of developing *new* oil production in the industrial countries exceeds $15 and, in many cases, $20 per barrel.

Very low oil prices would swiftly eliminate certain high-cost non-OPEC production from existing fields. Future non-OPEC production would be curtailed as well, because of the adverse effect of low prices and an uncertain environment for oil investment. Both these market-induced downward supply adjustments already are under way.

Motivated by economic self-interest, oil producers also may implement new voluntary production cuts. The price consequences of their production decisions now affect individual producers directly: the more they produce, the lower world oil prices may sink and the greater their risk of revenue loss. That risk formerly was minimized by Saudi Arabia's practically automatic support of prices: other oil exporters, OPEC and non-OPEC, could raise output with near-impu-

Chart 4

Oil outlook: consumption, supply and OPEC capacity



nity. Now, by contrast, the price fall has been so large that no oil producer outside the Arabian Peninsula has the capacity to bolster revenue successfully through higher production. Despite some pickup in export volume, the 40% drop in producer prices so far this year has reduced oil exporters' annual revenues by about $70 billion.

The production-versus-price choice may be illustrated for the nine OPEC members outside the Arabian Peninsula. Were they to keep output at the high level of 11 million bpd reached last December, prices most likely would slip to the under-$12 lows already reached by the spot market. Oil exports for these countries would be $38 billion annually, less than half those of 1985. A 10% cut in their production, which would bring it near the 1985 OPEC quota, could help stabilize producers' prices near the present level of $16. This would yield annual revenues of almost $44 billion. If the production cutbacks were maintained for some time, market confidence and inventory movements would change direction. Producer prices could rebound to $18 or above, further raising revenues.

In sum, the risk of further serious revenue loss is likely to push oil exporters into organized action to withhold supply. Any new production-sharing agreement, covering OPEC and probably some non-OPEC oil exporters as well, requires Saudi Arabia's participation for credibility and viability. However, Saudi participation this time is likely to be much on a par with other oil exporters, not as swing producer. Moreover, Saudi Arabia now holds a credible threat over its partners against their failure to observe any new arrangement.

Even with the expectation of some production restraint by oil exporters, any firming of prices that may emerge is likely to be moderate until the demand-production-capacity imbalance is reduced significantly (see Chart 4). A reasonable working assumption may be for prices to average $17-$18 in 1986-87 and rise but slowly thereafter. In the late 1980s, OPEC production may approach 80% of present capacity, compared with less than 60% in 1985, and prices could be up to around $20-$25 — in real terms, still below their 1985 level.

Industrial-country inflation and growth

With oil prices at $17 per barrel, down $10 from last year, almost all industrial countries can look forward to reduced inflation and stronger economic growth. Some of the effects are summarized in Table 3. Nonetheless, the fall in the dollar also must be factored into the outlook since, of itself, it must be expected to add to U.S. inflation and subtract from economic growth in Japan and Europe.

The counterinflationary fallout of $17 oil should shave an average of 1.4% from industrial countries' consumer prices directly, or as much as 2.1% allowing for sympathetic declines in wage pressures and other prices. Most of the benefits should be apparent during 1986. They are a major boon. Despite the dollar's fall, U.S. consumer price inflation this year should be under 2% — the lowest since 1965. For Japan and most of Europe, the oil price reduction reinforces the effects of currency appreciation. Outright deflation in consumer prices is a real possibility for Germany (see Table 4). Beyond 1986, even after the oil-price impact fades, inflation rates should be moderated by reduced pressures for catch-up wage hikes or other cost increases.

Subdued inflation provides the clearest explanation for the dramatic rally in the U.S. bond markets.

Table 3

1985-86 impacts of lower oil prices

assumes 1986 oil prices average $17 per barrel, down from $27 in 1985

	*On real GNP (as % of 1985 GNP)**	*On consumer prices (% points)***
United States	0.6	—2.0
Canada	—0.5	—1.6
Japan	1.5	—1.7
Germany	1.5	—1.9
France	1.4	—1.9
United Kingdom	—1.4	—1.8
Italy	2.3	—1.8
7 major industrial countries	0.8	—1.9

*Partial impacts, referring solely to the net increase in real domestic spending from the higher real consumption and investment triggered by the decline in the cost of oil imports less the offset from reduced sales to foreign oil exporters. Excluded are the effects of oil-price-induced changes in exchange rates and government policies; the "wealth effects" on spending induced by changes in financial asset values; and the feedback from the boost to world trade resulting from higher domestic spending. These excluded effects may cause the final impacts to be more positive for virtually all industrial countries, shifting Canada and the United Kingdom into the plus column.

**Due to the decline in oil and other fuel costs. No allowance is made for any induced deceleration in nominal wage increases.

Table 4

Consumer prices

percent change, Dec-Dec

	1985	*1986**	*1987**
United States	3.7	2.0	3.5
Canada	4.4	3.5	3.5
Japan	2.3	0.6	0.6
Germany	1.8	—0.4	0.5
France	4.7	2.5	3.0
United Kingdom	5.7	3.8	4.8
Italy	8.5	5.7	5.0
7 major industrial countries	3.7	1.9	2.8

*On the assumptions of the G-5 cooperative scenario in Table 9, including oil prices at $17 per barrel in 1986.

However, there has been relatively little softening in short-term U.S. money market rates. Nor have short-term rates abroad come down in one-for-one correspondence with the apparent reduction in inflation expectations. Consequently, yield curves have flattened and short-term interest rates in *real* terms have actually risen this year (see Chart 5). The cuts in major central banks' discount rates during early March are a welcome first step toward undoing that rise. But it will require further falls in short-term nominal interest rates to reestablish the monetary posture that prevailed earlier.

As for economic growth, a $10 per barrel fall in oil prices boosts real disposable incomes by roughly 0.6% in the industrial countries taken as a group. The prime beneficiaries are consumers and energy-using industries. Consumers generally respond quite quickly to increased purchasing power of their nominal wages and financial assets. On the production side, energy-using firms should realize substantial gains in sales values and profits. Still, not all industrial countries benefit equally. Table 5 compares prospective savings on net oil import bills. Italy is the winner in terms of import savings relative to GNP, followed by Germany, France, and Japan. Britain and Canada, as net oil exporters, lose out. Although the United States is the world's largest net oil importer, its oil imports are small in relation to GNP. Consequently, it will see a correspondingly modest boost to real incomes and economic growth.

The positive income and growth impact of the fall in oil prices is subject to several offsets. The first comes from the adjustment challenge facing energy producers and those who sell to them. For the U.S. economy, with its large energy sector, the daily cutbacks in petroleum investment plans, plus tales of generalized stress in the Sunbelt, suggest initial weakness in overall economic activity. Much the same may prove true for Canada, perhaps too for Britain.

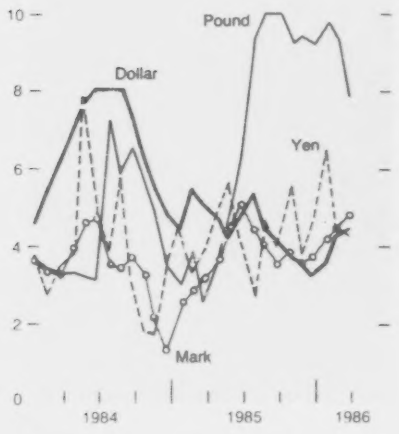
A second offset lies in the further prospective decline in industrial countries' sales to oil-exporting countries. Given that such sales already run much lower today than they did five years ago, the offset is unlikely to exceed 0.2% of industrial-country GNP on average, with Italy the most affected. Of course, for Britain the offset aggravates terms-of-trade-losses. The estimates in Table 6 are based on the mechanical assumption that oil revenue shortfalls reduce OPEC imports by 15% below 1985 levels, Mexico's by 18%. Actual import cuts by oil exporters may well prove smaller, since the net debtors among them will enjoy significantly lower interest payments.

A third offset lies in the likely bias of policy responses. Governments are unlikely to act in reinforcement of the stimulative effects of the present oil shock. In their eagerness to consolidate counterinflationary gains on an enduring basis, some central banks may take the opportunity of the present dip in inflation to lower their monetary sights. Moreover, persuaded that their economies now are set to revive, Japan and Germany — long under pressure to pursue more stimulative fiscal or monetary policies — may reject or delay relaxation. Finally, perceived conservation, security, and revenue needs may well lead to increased energy or oil taxes in many jurisdictions. Already, Britain, Denmark, Norway, and Switzerland are moving to hike certain oil taxes. With the passage of time, several other European countries, together with not a few U.S. state governments, are likely to follow suit. If the proceeds of such tax hikes are used for revenue enhancement,

Chart 5

Real interest rates

3-month Eurocurrency deposit rates deflated by consumer prices in percent*



*The inflation adjustment uses centered 6-month rates of change in consumer prices, including projections for 1986 when necessary.

rather than being substantially spent or else rebated to business and consumers, they will serve to tighten fiscal policy.

It seems improbable that these three sources of offset will combine to negate altogether the initial stimulus to industrial-country growth from lower oil prices. More likely, secondary gains will gradually arise in output, investment, employment, and incomes in most economic sectors — provided that oil prices are expected to stay down rather than snap back to their former heights. However, in the absence of significant policy changes in an expansive direction, the primary and secondary oil-price benefits to economic growth will be quite mild. Italy should benefit most, with growth higher by a little over 1% in *each* of 1986 and 1987. For Germany, France, and Japan, the gains are less, but still could amount to 1.5% or so for the two years taken together — more than double the likely U.S. benefit. However, tertiary benefits should occur beyond these first two stages, since the surge in financial asset values will tend to lift spending. Moreover, spending impulses in the individual countries will give a self-reinforcing boost to world trade.

No evaluation of the growth outlook should highlight oil price changes to the neglect of the past year's major changes in exchange rates. U.S. growth should benefit considerably from the decline in the dollar. Even without further depreciation, last year's 1.2-percentage-point negative contribution of net exports to real GNP growth on a fourth-quarter to fourth-quarter basis is expected to turn to positive contributions of 0.6 percentage points both this year and next. Conversely, Japan and Germany are in line for sizable negative contributions to their own growth. Britain may realize net gains to the extent that world trade gains and sterling's effective depreciation offset the negative consequences of the drop in oil prices. Canada is in a somewhat similar position.

At this stage, a cautious view is warranted of the overall prospective pickup in industrial-country economic growth that will flow from lower oil prices, lower nominal interest rates, and currency adjustments. U.S. growth has opened 1986 on a rather feeble note, although the combination of lower oil prices and a lower dollar suggests a stronger growth profile as the year proceeds, perhaps lasting into 1987 depending in part on the actual severity of budget deficit correction (see Table 7). In 1986 for Japan, and in 1987 for both Japan and Germany, currency appreciation and taut policies may outweigh the plus from low oil prices. Japan's current policies seem likely to hold its growth below potential both this year and next. Although Germany should experience relatively strong growth of 4% or so this year, together with some reduction in unemployment, its prospects for 1987 are not sufficiently bright to ensure further reduction in joblessness. Accordingly, in not one of the major countries can policymakers rest easy that their cherished dreams for adequate, sustained, and noninflationary growth will actually be realized.

Table 5

*Net oil import savings**

	$ billions	As percent of 1985 GNP
United States	16.5	0.4
Canada	—1.0	—0.3
Japan	14.9	1.1
Germany	7.7	1.2
France	5.7	1.1
United Kingdom	—4.0	—0.9
Italy	6.6	1.6
7 major industrial countries	46.4	0.6

*Assumes oil prices average $17 per barrel, versus $27 in 1985. No allowance is made for changes in oil import volume.

Has the dollar fallen enough?

The declines in oil prices and the dollar have important implications for trade and current account adjustment (see Table 8). Much of the counterpart to last year's $118 billion U.S. deficit on current account (3% of GNP) appeared as current account surpluses of $49 billion for Japan (4% of GNP) and $13 billion for Germany (2% of GNP). Counting only direct effects, this year's fall in oil prices should cut the red ink on

Table 6

*Industrial-country sales to major oil exporters**

	1985 sales, $ bil.	Projected shortfall due to lower oil-exporter revenues**	
		$ bil.	Percent of GNP
United States	26.1	4.33	0.1
Canada	1.4	0.22	0.1
Japan	14.0***	2.13	0.2
Germany	9.3	1.43	0.2
France	7.5	1.14	0.2
United Kingdom	6.7***	1.02	0.2
Italy	7.2****	1.09	0.3
7 major industrial countries	72.2	12.03	0.2

*OPEC and Mexico.

**Assumes oil prices average $17 per barrel, versus $27 in 1985.

***Based on data for January through November, 1985.

****Based on data for January through October, 1985.

Table 7

Real GNP

percent change

	1985	1986*	1987*
United States	2.2	3.0	3.0
Canada	4.5	3.4	3.0
Japan	4.6	3.2	2.9
Germany	2.4	4.1	2.8
France	1.2	2.8	2.8
United Kingdom	3.3	2.8	2.7
Italy	2.2	3.5	3.0
7 major industrial countries	2.7	3.1	2.9

*On the assumptions of the G-5 cooperative scenario in Table 9, including oil prices at $17 per barrel in 1986.

U.S. trade by some $17 billion per annum, but may save considerably less on current account if petroleum direct investment earnings fall. Japan and Germany can expect to save $15 billion and $8 billion on their respective oil import bills.

The dollar's decline has yet to deliver visible benefit to the U.S. trade figures: the deficit widened to a new all-time high of $17.5 billion in January, or over $200 billion at an annual rate. No doubt this figure was inflated by initially adverse J-curve effects. Still, there is a long way to go to achieve the deficits of $50 billion or less on trade account that would seem sustainable on political grounds — in the interest of fending off protectionist forces — or the current account deficits of similar magnitude that will be necessary to stabilize the U.S. net external debt position, relative to GNP, within a few years.

What fresh steps are needed to ensure that adequate adjustment of the U.S. external accounts will come to pass within an acceptable time frame? The need for further steps is strongly confirmed by the baseline, Case 1, analysis summarized in Table 9. This assumes that oil prices settle at $17 per barrel indefinitely, the dollar remains at present levels, and neither U.S. nor foreign governments revamp their present macroeconomic policy stance. On this basis, the U.S. trade deficit would come down for a time but bottom out above $100 billion per annum.

The improvement is limited for several reasons. First, the dollar's fall has occurred from a very high and short-lived peak. Its implications for U.S. competitiveness are better judged with the realization that, in real effective terms, the dollar has only recently come down close to its average level of 1980-82, the most recent period of modest U.S. trade deficits and approximate current account balance.

Second, many foreign exporters, having expended the investment to build market penetration while the dollar was high, still find their U.S. sales profitable with a lower dollar. Similarly, many U.S. importers and multinationals will not lightly revise long-term commitments to foreign-sourced products, especially where broad strategic alliances have been formed with foreign partners.

Third, ongoing structural change in the world economy is converting areas of former U.S. competitive strength to areas of intractable weakness; dollar declines are unlikely to bring back the $25 billion and rising U.S. agricultural trade surpluses that were taken for granted five years ago.

Fourth, the dollar's decline has been concentrated vis-à-vis the yen and European currencies. Although it helps U.S. exporters compete worldwide with Japanese and European rivals, a lower dollar has little direct bearing on the 56% of U.S. imports sourced from Canada, Mexico, and the developing countries. Just as much U.S. government spending is off-limits to budget cutters, many of the most significant U.S. trade partners either are in no financial position or are otherwise implausible candidates to cut back their sales to the United States. For example, by and large, the newly industrializing countries (NICs) link their currencies to the dollar. In many product lines, production displaced from Japan and Europe by a more competitive dollar is more likely to be relocated to the NICs than to the United States.

As for the U.S. current account deficit, the baseline analysis shows that steeply rising net U.S. interest payments to foreigners would allow no lasting reduction: at $120 billion in 1990, the deficit would be no narrower than in 1985. Moreover, although U.S. inflation would stay low, unemployment would be unlikely to

come down materially given the contractionary fiscal policy now coming into place. Likewise, foreign economies would make little headway toward working off their potential output gaps. Altogether, this baseline case achieves neither adequate nor viable resolution of today's principal international payments imbalance.

The failings of the Case 1 approach could jeopardize confidence among dollar asset holders, a risk already stirring concern at the Federal Reserve. In the quite different circumstances of 1978, when an inflationary monetary policy was the basic issue, a dollar defense package was mounted that steadied the dollar without severely restrictive consequences for the real economy. Today, an effective defense of the dollar at its present levels would surely dictate higher U.S. interest rates — in real, if not in nominal terms. Because real rates already are high and major sectors of the U.S. economy are under stress, still-higher real rates could well tip the economy as a whole into recession. Recession is one classical mechanism for correcting trade deficits. When prescribed for small countries, recession therapy may have little adverse consequence for the outside world. By contrast, a U.S. recession would be virtually certain to precipitate an economic slowdown abroad. Case 2 in Table 9 indicates that a U.S. recession as severe as the 1980-82 episode would be necessary to get the trade deficit back close to balance. The U.S. unemployment rate would surge to utterly unacceptable levels above 13%. Besides, for developing countries, any slowdown in industrial-country activity coupled with increased real interest rates would be seriously harmful.

Case 1 proves inadequate and Case 2 unacceptable, in part because both foreswear further dollar depreciation — precisely the remedy that many U.S. observers judge to be the low-cost quick-fix solution to the U.S. trade imbalance. Case 3 in Table 9 indicates that the U.S. trade deficit could be cut by about two-thirds as early as 1988 by successive devaluations dropping the dollar forthwith some 15% below *current* levels on a trade-weighted basis for the balance of this year, followed by a further 15% by 1988. As explained above, givebacks of currency competitiveness by Japan and Europe must necessarily contribute the great bulk of trade-weighted dollar depreciation. Consequently, their currencies generally would have to rise considerably more than those of other U.S. trade partners.

Unfortunately, as the 1970s experience demonstrated, devaluation is not a low-cost strategy. Compared with the virtual stability now expected for 1986, U.S. wholesale prices could be accelerating above 5% per annum just two years hence. Far from being speedily self-limiting, this acceleration of inflation would likely trigger a pernicious new wage-price spiral, taking off from the traded goods sector where discipline would not long survive a devaluation-induced lapse in competitive pressures. Inflation expectations would ratchet upward once again, driving nominal interest rates higher.

Moreover, it is illusory to suppose that the improvement in U.S. net exports brought on by devaluation would add one-for-one to U.S. real GNP without supplanting domestic demand. Although the export and import-competing sectors of the economy would gain in production, profitability, and jobs, there could be negative consequences on each count in construction and services as the economy moves closer to capacity and cost pressures resurface. Moreover, the resurgence of

Table 8

Current account balances

	1985	*1986**	*1987**
United States	—118	—115	—91
Canada	—2	—3	—1
Japan	49	60	30
Germany	13	28	20
France	0	6	4
United Kingdom	5	5	3
Italy	—4	3	3
7 major industrial countries	—57	—16	—32

*On the assumptions of the G-5 cooperative scenario in Table 9, including oil prices at $17 per barrel in 1986.

Table 9

U.S. current account scenarios

percent changes, except as noted

	United States										Non-U.S. OECD	
	Trade balance CIF ($ bil.)	Current account ($ bil.)	Foreign liabilities net of assets ($ bil.)	Net debt-export ratio (%)	Real GNP	Unemployment (%)	Wholesale manufacturing prices	6-month Treasury bill rate (%)	Effective dollar (1980-82=100) Nominal	Effective dollar (1980-82=100) Real	Real GNP	Traded goods prices
Case 1: $17 per barrel oil with dollar unchanged												
1985	—148	—118	88	9	2.2	7.1	1.5	7.7	127	121	2.9	2.2
1986	—137	—122	210	41	3.0	6.9	0.3	7.0	109	106	3.5	—1.3
1987	—125	—115	325	71	3.0	6.8	0.5	6.2	109	106	2.7	1.2
1988	—113	—108	433	97	2.5	7.0	1.4	6.0	109	106	2.9	1.4
1990	—118	—120	666	142	2.5	7.5	1.8	5.8	109	106	3.3	1.4
Case 2: U.S. recession with dollar unchanged												
1985	—148	—118	88	9	2.2	7.1	1.5	7.7	127	121	2.9	2.2
1986	—125	—112	250	40	2.5	7.3	—1.2	7.9	109	106	3.3	—2.7
1987	—90	—78	278	66	—2.4	11.0	—4.1	6.7	109	105	2.1	—2.6
1988	—57	—50	328	83	0.0	13.0	—3.8	6.7	109	101	2.3	—0.4
1990	—55	—49	435	106	1.7	14.8	2.6	6.5	109	108	2.8	0.8
Case 3: dollar slide												
1985	—148	—118	88	9	2.2	7.1	1.5	7.7	127	121	2.9	2.2
1986	—126	—113	200	38	3.0	6.9	1.5	7.0	95	97	3.2	—3.1
1987	—89	—86	286	57	3.0	6.9	3.6	8.2	86	91	2.7	—0.7
1988	—54	—57	343	68	2.5	7.0	5.5	8.5	80	90	2.7	—0.1
1990	—46	—46	437	75	2.6	7.4	6.3	7.0	71	89	2.7	0.9
Case 4: G-5 cooperation												
1985	—148	—118	88	9	2.2	7.1	1.5	7.7	127	121	2.9	2.2
1986	—130	—115	203	39	3.0	6.9	1.0	6.8	102	100	3.5	—1.3
1987	—100	—91	294	60	3.0	6.8	2.9	6.5	95	95	2.9	1.2
1988	—59	—55	349	69	2.5	7.1	5.1	7.2	90	93	4.3	1.8
1990	—60	—52	442	78	2.5	7.5	4.8	7.5	89	98	3.8	1.9

inflation could discourage investment generally even if apparent real interest rates were kept low.

Altogether, it is far from clear that the overall result for U.S. economic growth would be as positive as devaluation proponents proclaim. Nonetheless, compared with the risks of inaction or recession, dollar devaluation has the merit of tackling the U.S. trade problem without major peril to U.S. growth and employment.

The G-5 contribution

Lower oil prices and the dollar's decline to date promise only passing and inadequate respite for the U.S. trade imbalance. Drastic further dollar decline is no panacea, bearing in mind its inflationary dangers. Nor is U.S. recession a palatable corrective, given the severe risks for the international economy at large and the debt-laden developing countries in particular. U.S. protectionism would bring the worst of all worlds — high U.S. inflation and global recession simultaneously, without material alleviation of the U.S. trade deficit.

What has to be accepted is that, by itself, the United States cannot engineer a satisfactory solution to its trade imbalance. In all corrections of profound international imbalance — for example, the outsize OPEC surpluses that followed the oil shocks of the 1970s, or the overdependence of LDCs on foreign borrowing — satisfactory solutions are not attainable by unilateral measures but instead by collabora-

tive, or at least consistent, actions on the part of all major parties to the problem at hand. Once these are in motion, the imbalances typically fade away with surprising speed.

This recognition underlies the oft-expressed desire of U.S. officials for stepped-up growth in Japan and Europe, both for their own well being and to lessen the severity of dollar depreciation, U.S. domestic slowdown, or both, that will be needed to return the U.S. trade and current account deficits to manageable dimensions. Case 4 in Table 9 shows that with economic growth in Japan and Europe that averages 0.6% per annum faster than seems likely on present policies, in conjunction with further effective dollar depreciation of about 18%, it should be possible to shrink the U.S. external deficit to sustainable proportions without unacceptable resurgence of U.S. inflation or sacrifice of U.S. economic growth. Also, by assumption, Japan and Europe would be growing faster than under do-nothing policies. Altogether, this cooperative approach promises a much better outcome for the world economy than do solutions to the U.S. trade problem relying on U.S. actions alone. The indicated effective depreciation of the dollar, as noted earlier, would have to be accomplished mainly by appreciation of Japanese and European currencies. Were Japan and Europe to grow even faster than portrayed in this scenario, the yen and mark would need less appreciation.

The potential payoff from cooperation has been known for some time. However, so long as oil prices, interest rates, and the dollar remained high, Japan and Europe felt inhibited from active steps to boost their own economic growth. Today, following the break in oil prices engendered by Saudi Arabia's shift in oil policy, the lower interest rates bred by the erosion of inflation expectations, and a substantially lower dollar, the industrial countries are offered a window of opportunity to rectify mutual imbalances and move their economies closer to noninflationary potential.

Unfortunately, that window may close before the present euphoria, or at least complacency, about near-term economic prospects gives way to sober assessment of the longer-run risks. Realistically, industrial-country economic growth prospects are not especially bright, except perhaps this year for Germany and its European neighbors. The bulk of the growth benefits from lower oil prices are transient: their impetus will fade as early as 1987. Through their reluctance to lower nominal interest rates aggressively against the background of greatly reduced inflation expectations, central banks have in effect permitted rates in real terms to rise. The Federal Reserve has been inhibited from exercising its usual international leadership in interest rate matters by understandable concern that the dollar and the U.S. economy experience a soft landing — meaning that the dollar declines amid *narrowing* interest rate differentials, not in the face of *widening* differentials. In this light, the Federal Reserve was justified in delaying its recent discount rate reduction until internationally coordinated reductions could be arranged. However, the ½-percentage-point discount rate cut in early March still leaves real interest rates higher than had been judged appropriate last year.

Meanwhile, fiscal policies in the major countries generally range from neutral to restrictive. The imminently restrictive course of the U.S federal budget is of cardinal importance for U.S. growth prospects in 1987. For Japan and Europe, the lagged effects of their currency appreciations will be taking

toll of profits, output, and jobs in their export sectors both this year and next. Accordingly, without policy relaxation, none of the major countries can count on achieving sustained expansion at their potential *growth rate* much beyond this year, let alone on making up past shortfalls below potential output *levels*. It is not too soon to be putting policy improvements in hand now to better the chance for satisfactory performance in 1987-88.

How can appropriate policy improvements best be brought to pass? The G-5 forum provides the most promising vehicle. Unlike other international groupings, it is not encumbered by an unwieldy membership list or bureaucratic tradition. Moreover, its scope is not limited to currency matters, but rather spans the gamut of monetary, fiscal, exchange rate, and trade policies. It can make possible the frank discussion of members' domestic policies having international ramifications. And it offers the opportunity for choosing among different policy combinations with intelligent appreciation of the trade-offs involved. This is important, since the ever-burning question of the "right rate" for the dollar has no single answer independent of other policy choices.

In this connection, currency "target zones" are often proposed by those sympathetic to official control of international capital flows. However, their assumptions that zones would lessen volatility and provide formal discipline within a reconstituted international monetary system are liable to be disappointed in practice. Zones might actually exacerbate currency volatility: whether hard or soft at the edges, zones that are publicly known to the currency markets are prone to invite market challenge and upset — at least until such time, were it ever to come, that the zones acquire real credibility through recognized official willingness and competence to adapt basic policies in their support. There also are numerous technical problems in the computation of appropriate target zones, given the intrinsic uncertainties in economic relationships and the ambiguities concerning just what shifts in economic circumstance are to be deemed "structural" — warranting adjustment of the calculated zones — rather than "transient," calling for adjustment of market rates. These problems are manifest in the diverse and ever-shifting numeric ranges put forward by zone enthusiasts. Setting the right range for the dollar is just as difficult as setting its right rate.

Beyond these already formidable weaknesses, target zones present problems at the fundamental level of securing conceptual and practical agreement on appropriate balance of payments targets and adjustment speeds. No matter what the exchange rate regime — fixed, floating, or managed — the difficulty always has been that surplus countries like their surpluses. Typically, they see no virtue or necessity for changing their own policies unless domestic goals demand it. But when the adjustment burden is thrust wholly on deficit countries, the overall result is deflationary for the world economy, as has been demonstrated on a regional scale by the history of the European Monetary System. Reform of the exchange rate system is not enough to secure surplus country adjustment or avert deflation. But, recalling the events of 1971, the skillful exercise of political pressure, backed up by credible threats when necessary on the trade policy and exchange rate fronts, can extract the requisite adjustment from surplus countries and create a more healthy global economic environment for deficit countries, industrial and developing alike.

Formalized, bureaucratized, or

publicized target zones for currencies have little to offer for exchange rate management or global economic betterment. By contrast, on an informal, flexible, and confidential basis, illustrative zones — without target status — could facilitate pragmatic and constructive discussion within the G-5 forum. They could be used to illuminate the interrelationships among the whole range of official policies and to encourage appropriate policy changes — not only to harmonize monetary policies internationally but also, amid needed U.S. budgetary restraint, to press for Japanese and German fiscal relaxation. If the G-5 can move forward in these areas its value will be confirmed. After all, its purpose is not to rig the currency markets but to bring direction and collaborative endeavor to the global quest for sustained and noninflationary economic growth, including correction of international imbalances.

LDC capital flight

Capital flight is a serious problem for a number of LDCs, depriving them of resources for economic development and symbolizing the poor policies and performance contributing to external debt troubles. As clearly stated in the Baker initiative, dealing with capital flight is a prerequisite for mobilizing additional foreign credit for troubled LDCs. While particular instances of capital flight have achieved some notoriety, comprehensive quantitative estimates are hard to come by. This note presents an attempt at such quantification for 18 developing countries that are prominent international borrowers.

Capital flight can be defined as the reported and unreported acquisition of foreign assets by the nonbank private sector and some elements of the public sector. This is an expansive definition, in that it includes foreign-currency working balances of local enterprises engaged in international trade and trade credit extended directly by local exporters to foreign importers.

Since, in practice, capital flight cannot be well measured directly, Table 10 estimates it indirectly as the counterpart of recorded net direct investment inflows *plus* increases in gross external debt, *less* recorded outflows through current account deficits, and *less* the build-up of foreign assets by the banking system and the official monetary authorities. The resulting estimates are necessarily rough and are subject to several sources of both downward and upward bias. These biases are intrinsic to the indirect estimation method, arising principally from errors and omissions in recorded transactions and valuation changes in assets and liabilities induced by exchange rate changes. The overall direction and magnitude of bias cannot be established conclusively. However, with few exceptions, the estimates seem likely to understate actual capital flight — by as much as half in one or two cases. Further, the estimates are presented on a net basis — gross capital flight could be substantially higher.

Table 10

Estimated net capital flight

cumulative flows during 1976-85
billions of dollars, minus sign indicates outflows

	Net direct investment inflows	Change in gross external debt	Current account balance*	Change in selected gross foreign assets**	Capital flight***		
					Total	1976-82	1983-85
Argentina	4	42	—15	—4	—26	—27	1
Bolivia	0	3	—2	—0	—1	—1	0
Brazil	20	80	—77	—13	—10	—3	—7
Chile	2	16	—16	—3	1	0	1
Colombia	2	10	—11	—2	0	0	0
Ecuador	1	7	—5	—1	—2	—1	—1
Mexico	11	75	—29	—3	—53	—36	—17
Peru	0	8	—6	—2	—0	1	—1
Uruguay	1	4	—3	—1	—1	—1	—0
Venezuela	—0	26	10	—5	—30	—25	—6
Subtotal	40	270	—154	—33	—123	—93	—30
India	0	22	—8	—5	—10	—6	—4
Indonesia	2	27	—15	—9	—5	—6	1
Korea	0	40	—22	—6	—12	—6	—6
Malaysia	9	19	—12	—4	—12	—8	—4
Nigeria	2	18	—15	4	—10	—7	—3
Philippines	1	23	—16	1	—9	—7	—2
South Africa	—2	16	2	2	—17	—13	—4
Thailand	2	17	—17	—1	—0	1	—1
Subtotal	14	181	—102	—18	—75	—52	—23
Total for 18 countries	54	451	—256	—51	—198	—145	—53

*Minus sign indicates deficit.

**Official reserve assets and other foreign assets of official monetary authorities plus foreign assets of commercial banks and certain other banking institutions. Minus sign indicates increase in foreign assets.

***Apparent change in other foreign assets (minus sign indicates increase) through residual capital flows measured as the counterpart of the sum of net direct investment inflows, change in gross external debt, current account balance, and change in selected gross foreign assets. Direct investment and current account data are taken from the reported balance of payments. Debt and asset changes are derived from estimated year-end outstandings in dollar terms.

Note: Due to rounding columns and rows may not add.

Sources of understatement

Misreporting. Underinvoicing enables exporters to acquire foreign

Table 11

Identifiable nonbank residents' deposits in foreign banks, September 1985

billions of dollars

	*Total in all foreign banks**	*Banks in U.S.***	*Other foreign banks*
Argentina	8.2	4.1	4.1
Bolivia	0.4	n.a.	n.a.
Brazil	8.5	1.7	6.8
Chile	2.2	1.6	0.6
Colombia	1.6	1.8	0.8
Ecuador	1.3	0.7	0.6
Mexico	15.3	11.1	4.2
Peru	1.5	1.0	0.5
Uruguay	2.0	1.2	0.8
Venezuela	12.6	7.1	5.5
Subtotal	54.6	30.3	24.3
India	1.7	0.1	1.6
Indonesia	0.7	0.2	0.5
Korea	0.4	0.1	0.3
Malaysia	1.0	0.0	1.0
Nigeria	1.4	n.a.	n.a.
Philippines	1.1	0.7	0.4
South Africa	1.3	0.0	1.3
Thailand	0.4	0.2	0.2
Subtotal	8.0	1.3	6.7
Total for 18 countries	62.6	31.6	31.0

*Source: IMF, *International Financial Statistics*.

**Source: U.S. Treasury *Bulletin*. Banks in the U.S. include the U.S. agencies, branches, and subsidiaries of foreign banks.

exchange in excess of that declared and normally required to be sold to the central bank or its agents. The difference may be invested abroad, by the exporters themselves or after sale to others through unofficial markets offering an advantageous rate of exchange. Much the same applies to the proceeds from goods smuggled abroad. Some prime examples are: Argentina in 1983-84, when underreporting of exports is thought to have been a main channel for capital flight; Malaysia in 1976-84, when reported exports fell roughly $10 billion short of their FOB value recorded by trading partners; and Nigeria in 1979, when reported oil exports were about $4 billion less than volume and price data implied. In the area of service export receipts, underreporting also is prevalent in relation to tourism and the interest and dividends earned on assets held abroad.

Overinvoicing enables importers to purchase more foreign exchange at official rates — sometimes preferential — than they owe to foreign exporters. Again, the difference may be invested abroad, directly or by others through the unofficial markets. For example, during several years in the 1970s and 1980s Nigeria's reported imports substantially exceeded those recorded by its trading partners.

Valuation effects. When the dollar appreciates, as it did between end-1979 and end-1984, the dollar equivalent of debts denominated in other currencies decreases. Net borrowing from abroad is then understated when measured by changes in year-end debt outstandings — the more so with the growing practice of borrowing in currencies other than the dollar. The currency composition of external debt varies from country to country: almost 90% of Mexico's public-sector debt is dollar denominated, but less than half of Indonesia's. Unfortunately, the lack of full information concerning currency composition prevents reliable estimation of appropriate valuation adjustments.

On the asset side — quantitatively less important — it is when the dollar depreciates, as during 1985, that valuation effects cause capital flight measures based on year-end outstandings to be understated.

Sources of overstatement

Misreporting. Imports also are sometimes underreported — obviously so in connection with smuggled goods, to evade duties or controls, but also when governments seek to prevent public disclosure, for example, of military purchases. Such underreporting results in understatement of the current account deficit and, following the indirect estimation approach, overstatement of apparent net capital flight.

Valuation effects. When the dollar depreciates, as between end-1975 and end-1979 and again during 1985, the dollar equivalent of debt denominated in other currencies increases. Capital inflows measured by changes in the value of external debt outstandings from one year-end to the next are correspondingly overstated.

On the asset side, it is when the dollar appreciates, as during the early 1980s, that valuation effects cause capital flight measures based on year-end outstandings to be overstated.

Where is the money?

Only a fraction of the specific assets accumulated through capital flight can be identified. The BIS and the IMF report bank deposits held by nonbank entities in foreign banks by residence of depositor. Last September, for the 18 LDCs listed in

Table 12

Impact of capital flight on debt

billions of dollars, unless otherwise noted

	Gross external debt, end-1985		Gross debt as percent of exports of goods and services*	
	Actual	Without capital flight**	Actual	Without capital flight**
Argentina	50	1	493	16
Brazil	106	92	358	322
Mexico	97	12	327	61
Venezuela	31	—12	190	—55
Malaysia	20	4	103	18
Nigeria	19	7	161	62
Philippines	27	15	327	195
South Africa	24	1	131	15

*Debt-to-export ratios are based on the average of debt at beginning and end of 1985.

**Assumes that in the absence of capital flight, debt accumulation and related interest payments would have been reduced, and other flows (direct investment, changes in foreign assets of official monetary authorities and banks, and current account transactions other than interest payments) would not have differed from actual.

Table 11, such deposits amounted to nearly $63 billion, an increase of about $15 billion in less than three years. Only a small fraction is believed to be collateral for loans. Approximately half of all identified deposits were held in banks in the United States; only about 10% of those in U.S. banks were demand deposits. Undoubtedly there are additional holdings in U.S. and foreign banks by residents of these countries, but their use of addresses or intermediaries in countries other than their own prevents identification. Virtually no data are published on other foreign assets acquired through capital flight, such as currency, securities, businesses, and real estate.

Comment

During the past decade the 18 LDCs listed in Table 9 experienced net capital flight of nearly $200 billion, while simultaneously accumulating $450 billion additional foreign debt. This was no coincidence. The policies and track records that engendered capital flight also generated demands for foreign credit that, for much of the time, was readily available. Had the earnings on foreign assets acquired through capital flight been repatriated, rather than reinvested abroad, the servicing of existing debts would have been facilitated. Moreover, foreign debt accumulation would have been much smaller in the absence of capital flight. On the admittedly oversimplified assumption that capital flight served only to inflate debt buildup and related interest charges, several of the eight countries in Table 12 might have been practically debt-free today — were it not for capital flight.

Statistical appendix

For key to data in tables see February 1986 issue.

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Information herein is from sources considered to be reliable but is furnished without responsibility on the part of Morgan Guaranty Trust Company.

Nominal effective exchange rates

Index numbers, 1980-82 average=100.

		United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Neth-erlands	Spain	Swit-zerland	Den-mark	Norway	Swe-den
1981		99.5	100.2	105.8	104.0	100.4	97.2	98.8	102.1	98.9	101.8	97.1	99.4	98.3	99.2	100.1	103.3
1982		109.8	99.4	98.6	100.1	93.1	102.8	92.8	98.1	101.7	92.3	102.7	94.1	106.3	95.7	101.7	92.8
1983		114.2	100.8	107.8	92.0	87.3	107.6	90.3	91.6	103.8	90.0	105.0	78.4	111.5	96.4	99.4	82.2
1984		122.4	97.3	113.0	94.2	84.4	107.4	86.7	88.1	103.6	88.9	104.0	77.4	110.5	93.9	97.8	84.3
1985		127.1	92.8	115.8	76.3	85.4	107.7	82.2	88.2	104.2	89.5	103.9	75.6	109.5	95.0	95.6	83.9
1985																	
March		136.9	93.2	111.3	81.5	83.7	105.9	83.7	84.0	103.0	89.0	102.5	77.2	105.8	94.3	95.7	84.6
April		131.7	93.6	111.5	74.2	84.5	106.7	83.0	88.1	103.8	89.2	102.9	77.5	108.0	94.5	96.0	83.6
May		132.0	92.9	111.5	76.3	84.4	106.5	82.9	89.2	103.5	89.0	102.9	76.5	107.4	93.7	96.0	83.8
June		130.5	93.2	112.2	74.2	84.4	106.5	83.0	90.4	103.6	88.9	103.0	76.3	107.6	94.3	95.8	83.8
July		126.1	93.5	113.1	75.4	85.2	107.1	81.4	93.6	103.8	89.0	103.5	75.5	110.2	94.5	95.7	83.6
August		124.0	92.8	113.6	75.4	86.3	108.7	80.0	91.4	104.7	89.6	104.8	75.2	112.2	95.0	95.6	83.1
September		125.2	92.1	114.9	74.0	86.3	108.6	79.9	91.3	104.7	89.6	104.6	74.1	109.9	94.9	95.7	83.4
October		118.9	91.3	123.6	71.8	87.3	109.8	80.1	89.9	105.2	90.1	105.4	73.1	113.3	96.1	95.3	83.1
November		117.0	90.3	129.5	67.9	87.6	109.9	80.2	89.7	105.2	90.5	105.6	72.8	113.4	96.5	94.8	83.3
December		116.1	88.9	129.2	67.8	88.3	111.3	80.2	88.3	105.9	90.4	106.7	72.9	112.3	97.3	94.9	83.1
1986																	
January		115.1	87.9	130.1	69.1	88.8	112.5	81.0	85.3	106.4	91.1	107.6	73.0	112.1	97.6	94.8	82.7
February		111.2	87.5	138.8	66.9	89.5	113.5	81.7	82.6	106.8	91.6	108.2	73.2	114.2	98.1	95.3	82.0
February	*14*	111.7	88.0	139.2	66.7	89.3	113.1	81.6	82.4	106.6	91.4	108.0	73.2	114.7	97.9	95.2	82.2
	21	109.8	88.1	141.3	66.9	89.4	113.3	81.8	82.8	106.7	91.5	108.2	73.4	115.3	98.1	95.2	81.9
	28	108.7	87.2	139.9	66.2	89.9	114.2	82.3	82.7	107.2	92.0	108.7	73.8	114.6	98.8	95.7	81.8
March	*7*	109.0	86.3	141.0	65.8	90.1	114.6	82.5	81.4	107.4	92.2	109.1	74.0	114.0	99.1	95.2	81.6
	14	109.1	87.6	141.8	66.4	89.6	113.9	82.1	82.7	107.3	91.8	108.6	73.7	113.6	98.4	94.8	81.9
	21	107.8	87.7	143.9	66.4	89.5	113.8	82.1	83.3	107.1	92.2	108.5	73.8	114.6	98.5	94.6	81.8

Real effective exchange rates — industrial countries

Index numbers, 1980-82 average=100.

	United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Neth-erlands	Spain	Swit-zerland	Den-mark	Norway	Swe-den
1981	100.6	100.0	104.6	102.7	100.1	97.3	98.7	102.3	99.1	100.3	97.6	99.4	98.7	99.2	100.9	102.1
1982	109.9	100.4	92.3	104.3	97.8	99.2	97.8	97.9	100.7	92.3	102.5	99.8	102.6	97.3	102.5	96.7
1983	112.7	103.1	96.6	100.0	96.1	99.3	100.1	92.0	101.7	92.0	101.8	90.6	104.4	98.8	101.3	91.5
1984	118.2	101.2	97.6	105.1	96.8	96.5	101.0	89.3	102.7	90.9	100.0	95.2	99.4	96.4	100.1	96.9
1985	121.3	97.5	96.4	88.7	99.3	95.4	99.8	92.0	103.0	90.4	98.2	97.4	97.7	98.2	99.0	98.0
1985																
March	129.6	98.1	94.0	92.5	97.6	94.0	99.8	86.5	101.6	91.7	97.0	98.0	95.5	97.4	98.3	99.6
April	125.1	98.3	93.6	84.9	98.7	94.6	99.6	91.2	102.4	91.3	97.4	98.8	96.3	98.3	98.5	98.0
May	126.0	97.2	92.9	88.3	99.1	94.3	100.0	92.3	101.9	90.3	97.3	97.7	95.3	97.6	99.3	98.0
June	124.7	97.7	93.1	86.5	98.4	94.2	100.8	93.9	102.2	90.8	97.4	97.9	95.7	97.2	99.1	97.5
July	120.6	97.8	93.6	88.5	99.5	94.6	99.3	97.7	102.8	90.0	97.8	97.0	97.7	96.6	99.0	97.4
August	118.3	97.4	94.1	89.1	101.2	96.0	97.8	95.9	103.6	89.5	99.0	96.9	99.3	97.4	98.1	97.0
September	117.9	97.8	95.5	87.8	100.6	96.1	98.3	96.1	103.4	89.6	98.7	96.7	98.0	97.8	100.5	97.0
October	114.2	95.6	101.3	84.8	100.8	96.8	99.0	94.8	104.0	89.3	99.3	95.7	101.4	100.2	99.7	97.1
November	112.7	94.5	105.5	80.4	100.4	97.0	99.2	94.9	104.2	89.6	99.3	96.1	101.5	100.5	100.1	97.1
December	111.9	93.4	105.1	80.5	100.9	97.8	99.9	93.7	105.6	89.5	100.4	96.8	100.4	101.5	100.0	97.0
1986																
January	110.3	92.9	105.7	82.3	100.9	98.7	101.2	91.3	107.0	89.6	101.1	99.8	100.4	101.3	100.7	97.3
February	105.2	93.6	113.2	80.3	101.2	99.5	102.7	89.0	107.8	90.0	101.7	101.1	102.6	102.2	101.9	96.8

Real effective exchange rates — developing countries

Index numbers, 1980-82 = 100

	Argentina	Brazil	Chile	Colombia	Mexico	Peru	Venezuela	Hong Kong	Indonesia	Korea	Malaysia	Philippines	Singapore	Taiwan	Israel	Turkey
1981	107.4	103.2	108.1	100.4	114.1	103.2	99.6	99.4	99.6	101.2	99.3	101.2	102.7	102.6	99.2	104.4
1982	76.4	112.0	96.6	104.8	81.9	103.7	109.1	102.2	110.8	102.9	104.5	105.5	98.7	96.5	107.7	95.4
1983	71.0	85.6	88.7	104.0	78.0	97.7	116.1	96.6	95.7	97.3	112.7	95.1	97.1	93.1	119.4	92.8
1984	79.8	85.5	89.8	99.3	91.5	105.6	85.6	100.3	96.7	95.9	119.1	107.4	95.8	95.5	118.3	90.6
1985	70.9	84.7	79.4	85.5	90.1	97.0	92.7	106.2	96.1	88.7	115.8	114.2	89.6	92.9	105.6	91.0
1985																
February	74.8	93.1	89.7	99.7	100.2	100.1	94.4	111.5	102.4	97.9	119.4	123.4	95.7	99.5	119.4	102.3
March	76.3	96.6	82.8	96.5	100.9	99.2	94.3	112.1	100.9	96.2	118.1	123.4	95.7	98.6	115.9	101.5
April	76.0	88.9	81.4	91.4	98.9	95.9	92.4	108.7	100.2	92.1	118.4	118.7	94.4	96.1	112.5	96.3
May	76.5	84.1	82.7	88.9	97.9	99.6	93.6	108.9	99.9	91.0	118.9	117.4	93.1	95.1	104.5	94.1
June	75.4	80.9	84.7	86.6	97.4	99.8	93.4	108.1	99.7	90.0	118.4	116.4	91.3	94.5	105.2	90.0
July	67.8	78.8	76.7	83.3	93.9	99.7	92.8	105.3	96.8	87.7	116.2	113.5	87.8	91.8	99.1	86.5
August	66.9	80.6	74.1	81.6	82.0	92.1	92.8	103.2	95.2	85.8	114.6	110.1	86.1	90.2	98.4	85.1
September	67.6	80.9	75.6	80.7	82.7	94.6	94.2	104.9	95.2	85.9	115.4	111.6	86.9	90.9	101.7	86.2
October	65.0	79.4	73.0	76.3	78.8	93.3	91.0	101.7	89.3	81.9	110.8	106.5	84.3	87.6	100.6	85.2
November	64.1	80.1	72.4	74.1	77.1	94.3	92.1	100.9	87.1	80.5	109.9	105.5	83.2	87.0	101.2	84.9
December	63.7	80.4	71.8	72.8	74.5	96.1	91.4	100.5	86.5	80.3	109.0	107.0	82.2	86.4	101.0	82.9
1986																
January	63.0	79.0	71.7	72.2	73.2	100.2	91.3	99.6	86.4	79.2	107.9	104.0	81.4	86.1	100.4	81.7

International banking market size

at end of period, billions of dollars

	1981	1982	1983	1984			1985		
				Jun	Sep	Dec	Mar	Jun	Sep
Gross claims									
Eurocurrencies, on residents and nonresidents	**1 929**	**2 146**	**2 253**	**2 330**	**2 322**	**2 359**	**2 457**	**2 442**	**2 598**
On nonbanks	557	634	665	679	676	694	706	706	743
On banks	1 372	1 512	1 588	1 651	1 646	1 665	1 751	1 723	1 855
In dollars	1 504	1 694	1 797	1 850	1 857	1 894	1 944	1 908	1 978
In other currencies	425	452	456	480	465	465	513	534	620
Domestic currencies, on nonresidents	**365**	**398**	**398**	**406**	**393**	**397**	**402**	**417**	**443**
On nonbanks	128	132	136	140	138	137	140	144	157
On banks	237	266	262	266	255	260	262	273	286
In dollars	188	211	217	218	208	210	201	204	197
In other currencies	177	187	181	188	185	187	201	213	246
Total	**2 294**	**2 544**	**2 651**	**2 736**	**2 715**	**2 756**	**2 859**	**2 859**	**3 041**
On nonbanks	685	766	801	819	814	831	846	863	900
On banks	1 609	1 778	850	1 917	1 901	1 925	2 013	1 996	2 141
In dollars	1 692	1 905	2 014	2 068	2 065	2 104	2 145	2 112	2 175
In other currencies	602	639	637	668	650	652	714	747	866
Gross liabilities									
Eurocurrencies, to residents and nonresidents	**1 954**	**2 168**	**2 278**	**2 360**	**2 349**	**2 386**	**2 477**	**2 462**	**2 621**
To nonbanks	372	432	479	503	492	497	508	509	529
To official monetary institutions	112	91	88	88	94	96	96	106	109
To other banks	1 470	1 645	1 711	1 769	1 763	1 793	1 873	1 847	1 983
In dollars	1 539	1 741	1 846	1 905	1 912	1 950	1 998	1 960	2 026
In other currencies	415	427	432	455	437	436	479	502	595
Domestic currencies, to nonresidents	**263**	**250**	**258**	**277**	**274**	**277**	**289**	**306**	**336**
To nonbanks	74	70	71	71	72	77	78	85	98
To banks	189	180	187	206	202	200	211	221	238
In dollars	126	116	133	140	140	143	143	150	154
In other currencies	137	134	125	137	134	134	146	156	182
Total	**2 217**	**2 418**	**2 536**	**2 637**	**2 623**	**2 663**	**2 766**	**2 768**	**2 957**
To nonbanks	446	502	550	574	564	574	586	594	627
To banks and official institutions	1 771	1 916	1 986	2 063	2 059	2 089	2 180	2 174	2 330
In dollars	1 665	1 857	1 979	2 045	2 052	2 093	2 141	2 110	2 180
In other currencies	552	561	557	592	571	570	625	658	777
Net market size	**1 155**	**1 285**	**1 377**	**1 417**	**1 407**	**1 425**	**1 447**	**1 477**	**1 556**

International bond issues and bank credits

millions of dollars

	1983	1984	1985	1985	1986		Jan-Feb	
				Dec	Jan	Feb	1986	1985
By country of borrower								
Industrial countries	**102 652**	**177 077**	**226 711**	**20 269**	**15 796**	**17 948**	**33 744**	**33 671**
Australia	5 737	5 816	14 407	882	3 012	1 422	4 435	1 293
Austria	1 290	2 254	2 435	108	291	475	766	337
Belgium	2 168	1 847	3 269	784	111	421	531	515
Canada	8 571	13 124	17 184	356	369	2 447	2 816	5 372
Denmark	3 941	4 825	3 589	86	61	228	289	717
Finland	1 271	1 713	1 846	386	199	329	527	348
France	8 626	11 298	18 773	1 947	644	722	1 367	2 487
Germany	3 197	2 165	3 452	597	211	739	950	390
Greece	1 291	1 551	1 588	—	—	—	—	469
Ireland	1 869	1 377	1 881	185	132	257	389	401
Italy	4 876	6 933	11 033	1 220	974	436	1 410	2 250
Japan	14 428	17 526	21 269	909	1 145	1 710	2 855	4 409
Netherlands	1 213	1 973	2 299	113	90	410	500	245
New Zealand	802	3 208	2 707	156	420	250	670	253
Norway	1 969	1 324	3 905	275	178	157	335	313
Portugal	1 030	1 796	2 382	100	568	30	598	262
South Africa	1 300	1 422	825	—	—	—	—	202
Spain	4 977	4 931	3 913	351	49	265	313	910
Sweden	7 144	11 256	9 890	213	639	802	1 441	1 239
United Kingdom	2 726	8 899	25 424	1 453	1 521	1 613	3 134	1 423
United States	20 276	65 054	69 194	9 072	4 752	4 817	9 569	9 606
*Other**	3 950	6 785	5 447	379	431	418	848	231
Developing countries	**38 256**	**39 725**	**32 139**	**2 368**	**1 552**	**1 071**	**2 823**	**2 825**
Latin American countries	**15 592**	**17 464**	**8 115**	**1 066**	**30**	**130**	**160**	**297**
Argentina	1 750	4 212	3 700	—	17	—	17	—
Brazil	4 475	6 649	—	—	—	—	—	—
Chile	1 405	784	1 085	—	—	—	—	—
Colombia	552	589	1 052	1 000	—	—	—	—
Mexico	5 138	3 918	109	60	—	—	—	—
Venezuela	237	—	48	—	—	—	—	—
*Other***	2 035	1 312	2 121	6	13	130	143	297
Asian countries	**12 978**	**15 893**	**18 410**	**864**	**1 377**	**807**	**2 184**	**1 275**
India	968	945	818	100	509	83	592	242
Indonesia	2 363	1 924	451	—	300	—	300	—
Korea	4 387	6 201	5 898	130	293	198	491	397
Malaysia	2 197	2 605	2 220	—	—	—	—	118
Philippines	878	925	925	—	—	—	—	—
Thailand	747	1 221	1 497	300	—	—	—	400
Other	1 438	2 072	6 602	334	276	526	802	118
Middle Eastern and African countries	**9 686**	**6 368**	**5 614**	**438**	**145**	**134**	**279**	**1 252**
Algeria	1 993	821	1 450	150	—	107	107	600
Nigeria	2 343	985	—	—	—	—	—	—
Turkey	1 106	741	1 203	175	138	—	138	—
Other	4 244	3 821	2 960	113	7	27	34	652
Eastern European countries	**1 294**	**3 244**	**5 236**	**711**	**298**	**463**	**761**	**535**
Hungary	741	1 386	1 578	415	248	63	311	230
Soviet Union	93	1 051	1 489	146	—	300	300	206
*Other****	460	807	2 169	150	50	100	150	100
International organizations****	**16 201**	**13 287**	**20 635**	**1 898**	**2 089**	**1 519**	**3 608**	**3 124**
By type of instrument and currency								
International bond issues	**76 329**	**107 411**	**167 756**	**11 844**	**14 061**	**17 994**	**32 055**	**27 304**
Eurobonds	48 501	79 458	136 731	10 163	11 179	14 471	25 650	22 888
U.S. dollar	38 428	63 593	97 782	6 593	7 570	10 077	17 647	18 355
German mark	3 817	4 604	9 491	1 114	1 052	1 360	2 412	1 216
British pound	1 947	3 997	5 766	525	289	282	570	389
Japanese yen	212	1 212	6 539	1 078	1 036	1 041	2 077	1 091
European composite units	2 019	3 032	7 038	363	464	215	679	732
Other	2 078	3 020	10 114	490	768	1 496	2 264	1 106
Foreign bonds	27 828	27 953	31 025	1 681	2 882	3 523	6 405	4 416
U.S. dollar	4 545	5 487	4 655	—	914	150	1 064	825
German mark	2 671	2 243	1 741	120	—	—	—	247
British pound	811	1 292	958	—	—	—	—	65
Swiss franc	14 299	12 626	14 954	1 309	1 334	2 009	3 343	2 143
Japanese yen	3 772	4 628	6 379	135	321	1 214	1 535	837
Other	1 730	1 677	2 339	116	313	150	463	299
International bank credits	**82 074**	**125 922**	**116 964**	**13 402**	**5 674**	**3 008**	**8 681**	**12 851**
Eurocurrency credits	74 222	112 605	110 317	13 253	5 368	2 901	8 269	11 945
Foreign credits	7 852	13 317	6 648	150	305	107	412	905
Total	**158 403**	**233 333**	**284 720**	**25 246**	**19 735**	**21 001**	**40 736**	**40 155**

*Includes multinational organizations. **Includes unallocated. ***Includes COMECON institutions. ****Includes regional development organizations.

Eurocurrency deposit rates

prime banks' bid rates, at or near end of month

	1982	1983	1984	1985					1986	
	Dec	Dec	Dec	Aug	Sep	Oct	Nov	Dec	Jan	Feb
Eurodollar										
overnight	9.25	9.50	8.63	7.56	8.38	7.88	7.88	12.25	7.88	7.81
one month	9.13	9.69	8.38	7.94	7.94	7.88	8.06	8.00	7.94	7.81
three months	9.19	9.81	8.63	8.00	8.06	7.94	8.06	7.88	7.94	7.75
six months	9.50	10.06	9.13	8.13	8.31	8.00	8.06	7.88	8.00	7.69
twelve months	9.63	10.38	9.81	8.56	8.56	8.25	8.17	7.94	8.13	7.75
Euro-Canadian dollar										
one month	10.00	9.13	9.88	8.75	8.38	8.31	8.88	9.00	10.69	12.88
three months	10.00	9.50	10.61	8.94	8.69	8.38	8.88	9.00	10.69	11.69
six months	10.13	9.75	10.06	9.19	9.06	8.56	8.94	9.00	10.44	10.94
twelve months	10.25	10.00	10.44	9.50	9.38	8.94	9.06	9.00	10.31	10.31
Euro-French franc										
one month	23.00	12.13	10.69	9.88	9.63	9.19	9.63	12.50	15.00	14.50
three months	24.00	12.19	10.69	10.63	10.50	9.63	9.75	13.00	16.25	14.00
six months	22.00	12.31	11.00	11.50	10.88	10.63	10.25	13.13	13.75	12.50
twelve months	19.75	12.63	11.38	11.75	11.25	10.88	10.25	12.25	12.75	10.75
Euromark										
one month	5.88	5.25	5.50	4.50	4.44	4.69	4.69	4.75	4.56	4.56
three months	5.88	5.88	5.50	4.50	4.50	4.63	4.69	4.75	4.57	4.44
six months	5.94	6.13	5.56	4.56	4.63	4.94	4.75	4.75	4.57	4.38
twelve months	6.00	6.38	5.56	4.69	4.75	5.06	4.88	4.81	4.63	4.38
Euro-Dutch guilder										
one month	5.13	5.81	5.69	5.75	5.69	6.13	5.75	5.75	5.69	5.81
three months	5.19	6.00	5.75	5.69	5.69	6.19	5.75	5.75	5.69	5.81
six months	5.38	6.25	5.81	5.69	5.69	6.19	5.88	5.81	5.69	5.75
twelve months	5.63	6.38	5.94	5.69	5.69	6.25	5.94	5.88	5.75	5.75
Euro-Swiss franc										
one month	2.81	3.38	4.44	4.44	4.19	3.88	4.00	3.88	4.06	3.75
three months	3.25	3.75	4.56	4.56	4.50	4.44	4.00	4.00	4.06	3.75
six months	3.44	3.94	4.63	4.69	4.63	4.50	4.00	4.00	4.06	3.75
twelve months	3.44	3.94	4.69	4.63	4.63	4.56	4.06	4.06	4.13	3.81
Eurosterling										
one month	10.56	9.13	9.50	11.88	11.63	11.56	11.63	11.69	12.75	12.56
three months	10.44	9.31	9.88	11.63	11.50	11.50	11.56	11.81	12.81	12.31
six months	10.31	9.50	10.00	11.13	11.19	11.44	11.31	11.81	12.75	12.00
twelve months	10.31	9.81	10.19	11.06	11.00	11.19	11.13	11.69	12.63	11.69
Euroyen										
one month	6.75	6.25	6.19	6.44	6.75	7.50	8.19	7.13	6.38	6.50
three months	6.75	6.31	6.19	6.38	6.38	7.75	7.69	6.56	6.13	5.88
six months	7.10	6.38	6.13	6.31	6.38	7.38	7.19	6.50	6.06	6.56
twelve months	6.81	6.44	6.13	6.31	6.38	7.06	6.94	6.38	6.00	6.56
European currency unit										
one month	12.44	8.81	9.25	8.00	8.31	8.31	8.31	9.63	10.63	9.94
three months	12.31	9.19	9.38	8.50	8.50	8.50	8.50	9.63	10.13	9.88
six months	12.00	9.44	9.50	8.75	8.75	8.81	8.69	9.63	9.75	9.44
twelve months	11.19	9.63	9.63	8.88	8.88	8.75	8.75	9.63	9.13	9.06

International bond yields

average yield of several actively traded, high quality issues with a maturity of 7 to 12 years
at or near end of month

	1983	1984	1985						1986	
	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
United States companies										
Eurodollar	11.59	11.25	10.65	10.37	10.53	10.37	10.04	9.68	9.60	9.27
Euromark	7.34	6.95	6.74	6.67	6.74	7.13	6.95	6.73	6.73	6.61
Swiss franc	5.83	5.73	5.69	5.60	5.62	5.66	5.59	5.49	5.47	5.52
European governments										
Eurodollar	12.65	12.04	11.31	11.11	11.18	11.04	10.77	10.52	10.59	10.36
Euromark	8.12	7.39	7.17	6.89	6.96	7.23	7.14	7.03	6.95	6.81
Swiss franc	5.63	5.24	5.16	5.09	5.00	5.02	4.99	4.91	4.82	4.71
European currency unit	11.77	10.64	9.99	10.01	10.14	10.42	10.20	10.23	10.26	10.44

Central bank discount rates

at or near end of month

	1982	1983	1984	1985			1986		Current	
	Dec	Dec	Dec	Oct	Nov	Dec	Jan	Feb	Mar 20 1986	effective since
United States	8.50	8.50	8.00	7.50	7.50	7.50	7.50	7.50	7.00	Mar 7, 86
Canada	10.05	9.96	10.09	8.78	9.10	9.49	10.80	11.80	10.11	Mar 20, 86
Austria	4.75	3.75	4.50	4.00	4.00	4.00	4.00	4.00	4.00	Aug 19, 85
Belgium	11.50	10.00	11.00	9.00	8.75	9.75	9.75	9.75	9.75	Dec 23, 85
Denmark	10.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	Oct 27, 83
Finland	8.50	9.50	9.50	9.00	9.00	9.00	8.50	8.50	8.00	Mar 1, 86
France	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	Aug 31, 77
Germany	5.00	4.00	4.50	4.00	4.00	4.00	4.00	4.00	3.50	Mar 7, 86
Ireland	14.00	12.25	14.00	10.25	10.25	10.25	11.75	13.75	13.75	Feb 3, 86
Italy	18.00	17.00	16.50	15.50	15.00	15.00	15.00	15.00	15.00	Nov 8, 85
Netherlands	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.50	Mar 7, 86
Norway	9.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jun 6, 83
Portugal	19.00	25.00	25.00	23.00	19.00	19.00	19.00	19.00	19.00	Nov 27, 85
Spain	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jul 26, 77
Sweden	10.00	8.50	9.50	10.50	10.50	10.50	9.50	9.50	8.50	Mar 13, 86
Switzerland	4.50	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	Mar 18, 83
United Kingdom	10.00	9.00	9.38	11.31	11.31	11.31	12.31	12.31	11.31	Mar 20, 86
Japan	5.50	5.00	5.00	5.00	5.00	5.00	4.50	4.50	4.00	Mar 10, 86
New Zealand	13.00	7.50	13.50	24.80	20.90	19.80	n.a.	n.a.	n.a.	Dec, 85
South Africa	15.45	18.50	21.75	14.50	13.50	13.50	12.50	12.50	12.50	Jan 17, 86
Argentina*	10.56	15.10	18.19	5.00	5.00	5.00	5.00	5.00	5.00	Oct, 85
Korea	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	Mar 29, 82
Philippines	6.30	8.05	12.11	11.92	10.81	11.50	11.62	n.a.	n.a.	Jan, 86
Singapore	7.00	7.00	6.75	5.00	5.00	5.00	5.00	5.00	5.00	Jul, 85
Thailand	12.50	13.00	12.00	11.00	11.00	11.00	11.00	11.00	11.00	Jul 26, 85
Venezuela	13.00	11.00	11.00	8.00	8.00	8.00	8.00	8.00	8.00	Oct 16, 85

*Percent per month.

Day-to-day money rates

monthly averages

	1982	1983	1984	1985						1986	
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
United States	8.95	9.47	8.38	7.88	7.90	7.92	7.99	8.05	8.27	8.14	7.85
Canada	10.63	8.78	10.50	9.27	8.97	8.53	8.58	8.81	9.23	9.94	11.47
Austria	6.00	5.75	7.63	6.13	5.38	4.88	5.50	6.75	7.25	6.13	6.25
Belgium	9.29	7.39	9.12	6.97	8.00	7.91	8.26	7.93	6.78	8.36	8.57
Finland	11.50	16.70	15.07	13.60	13.43	13.11	12.78	12.37	11.96	11.64	11.40
France	12.88	12.27	10.95	9.88	9.68	9.57	9.34	8.98	9.01	8.83	n.a.
Germany	6.15	5.61	5.62	5.13	4.77	4.59	4.54	4.61	4.64	4.64	4.56
Ireland	14.54	12.19	14.50	11.50	10.75	9.50	9.38	8.50	9.62	12.00	14.38
Italy	19.00	17.88	17.25	15.00	14.83	14.38	14.35	14.58	14.75	15.15	16.57
Netherlands	5.31	5.84	5.60	6.63	5.92	5.74	5.87	5.78	5.75	5.75	6.01
Norway	11.00	12.30	12.50	12.30	12.70	11.80	12.25	12.50	12.40	13.00	13.20
Spain	20.18	16.77	12.11	12.39	12.99	10.86	8.99	10.49	9.78	8.44	10.49
Sweden	9.31	11.52	11.88	15.39	15.00	15.00	14.77	13.48	n.a.	12.50	12.50
Switzerland	1.25	1.88	1.50	2.00	2.50	2.00	1.25	0.75	2.00	2.00	1.75
United Kingdom	6.70	7.78	6.31	12.45	11.25	9.89	9.66	14.72	9.72	11.59	11.16
Australia	10.87	4.55	10.98	14.58	15.29	15.83	15.84	16.87	18.37	18.32	18.25
Japan	6.92	6.44	6.41	6.19	6.17	6.41	6.54	7.29	8.02	6.95	5.78
South Africa	14.15	16.06	21.13	17.50	16.25	15.20	14.90	13.13	12.50	12.00	11.25
Argentina*	12.77	14.65	17.75	5.00	5.00	5.00	4.50	4.50	4.50	4.50	4.50
Brazil	150.42	184.69	272.02	214.19	194.90	230.30	237.20	229.96	352.23	541.33	376.24
Hong Kong	9.13	13.90	6.80	4.95	2.74	4.71	4.38	5.43	6.10	5.93	6.63
Korea	13.84	11.40	10.00	9.50	9.70	9.40	9.60	9.00	8.80	8.50	9.40
Philippines	16.12	31.18	15.22	20.36	18.39	10.25	16.71	15.41	15.03	11.72	n.a.
Singapore	11.45	7.05	6.01	4.94	4.37	5.34	5.79	4.49	4.53	4.84	5.75
Taiwan	8.94	7.65	8.07	6.79	8.33	6.81	5.30	5.06	4.50	4.25	5.25

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Treasury bill rates

bond equivalent yields, at or near end of month

	1982	1983	1984	1985						1986	
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
United States	8.15	9.28	7.99	7.40	7.36	7.13	7.44	7.40	7.25	7.15	7.22
Canada	9.80	9.71	9.84	9.06	8.95	8.75	8.53	8.85	9.24	10.55	11.55
Belgium	12.42	11.00	10.90	9.63	9.63	9.28	8.92	8.72	9.89	9.89	9.89
Ireland	15.25	12.01	15.10	10.38	10.43	9.89	10.14	10.41	11.15	14.32	15.02
Italy	19.11	16.95	14.69	14.08	13.99	13.37	12.90	12.76	n.a.	n.a.	n.a.
Netherlands	5.63	5.63	5.88	6.25	5.75	5.75	6.19	5.88	5.69	5.72	6.13
Spain	15.28	14.46	12.00	13.29	12.45	10.66	9.44	9.25	9.25	9.25	9.25
Sweden	12.90	11.75	11.83	15.04	15.00	15.33	14.37	13.28	12.49	11.70	11.14
United Kingdom	9.96	9.04	9.33	11.30	11.31	11.38	11.45	11.33	11.49	12.47	12.21
Australia	9.39	8.54	12.27	14.78	16.17	16.16	16.36	18.45	19.40	18.46	17.03
Japan	5.42	4.91	4.91	4.91	4.91	4.91	4.91	4.91	4.91	4.91	4.91
New Zealand	11.25	7.80	13.50	24.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
South Africa	14.62	18.43	21.94	16.48	15.72	15.22	13.87	12.90	12.99	12.02	11.96
Brazil	115.40	179.15	273.03	223.13	197.15	233.20	241.20	245.33	379.77	n.a.	n.a.
Mexico	57.44	53.78	48.67	74.99	70.56	n.a.	66.24	70.70	72.98	74.89	77.75
Philippines	14.54	15.99	47.14	29.59	21.60	18.01	17.04	16.63	16.45	16.68	n.a.
Singapore	2.74	2.59	2.91	2.68	2.79	2.97	2.92	2.89	2.94	2.96	2.80

Representative money market rates

bond-equivalent yields on major short-term (mostly 3-4 month) money market instruments other than Treasury bills, at or near end of month

	1982	1983	1984	1985						1986	
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
United States	8.94	9.89	8.34	7.85	7.91	7.89	8.07	8.01	8.01	7.91	7.80
Canada	9.95	9.87	10.10	9.25	9.15	8.95	8.70	9.25	9.45	11.25	12.05
Belgium	12.52	11.15	10.85	9.02	9.73	9.48	8.97	8.72	9.89	9.89	9.89
France	12.75	12.19	10.69	10.00	9.75	9.44	9.25	8.87	9.12	8.93	n.a.
Germany	6.20	6.30	5.75	5.00	4.65	4.65	4.95	4.80	4.80	4.60	4.35
Ireland	15.75	12.19	15.13	10.50	10.38	10.25	10.25	10.50	12.00	15.25	16.25
Italy	19.00	17.88	16.88	14.38	14.38	14.38	15.00	14.63	14.63	15.50	n.a.
Netherlands	5.25	6.00	5.75	6.13	5.75	5.81	6.25	5.94	5.75	5.81	5.88
Portugal	15.05	24.11	24.57	24.65	22.63	22.69	22.69	22.49	n.a.	n.a.	n.a.
Spain	16.97	18.99	12.16	13.80	13.03	11.17	10.16	10.13	10.13	10.37	10.44
Switzerland	3.88	3.88	5.00	5.38	4.63	4.69	4.69	4.13	4.75	4.43	4.13
United Kingdom	10.50	9.31	9.88	11.13	11.56	11.50	11.50	11.50	12.75	12.75	12.25
Australia	9.85	9.05	12.90	15.20	16.70	16.50	16.35	18.65	19.75	18.75	16.75
Japan	6.96	6.45	6.33	6.29	6.30	6.33	7.11	7.55	7.03	6.12	5.92
New Zealand	16.75	12.10	15.25	25.30	26.75	27.20	24.95	20.50	n.a.	n.a.	n.a.
South Africa	15.26	19.12	22.78	17.80	16.50	15.25	14.03	13.20	n.a.	12.55	12.40
Chile	55.90	20.68	20.68	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Hong Kong	9.25	14.88	8.25	5.31	6.00	5.63	6.00	6.50	6.50	6.63	6.81
Indonesia	18.50	19.50	19.00	15.50	15.50	15.00	14.50	14.50	15.00	14.50	14.50
Korea	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
Malaysia	8.50	9.80	10.30	7.00	8.50	7.50	7.25	8.25	8.20	8.30	8.70
Philippines	15.96	15.61	33.21	21.25	20.48	16.56	25.11	22.45	14.61	23.05	n.a.
Singapore	8.69	8.44	7.00	5.13	4.56	6.38	5.81	5.44	5.88	5.53	5.31
Taiwan	n.a.	8.07	7.85	6.70	7.33	5.76	5.13	4.51	4.10	3.17	3.10
Thailand	12.25	16.00	12.00	12.00	12.00	12.00	13.50	15.00	15.50	11.50	11.25

Commercial bank deposit rates

at or near end of month

	1982	1983	1984	1985						1986	
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
United States	8.25	8.70	8.35	7.95	7.88	7.80	7.80	7.88	7.75	7.75	7.60
Canada	9.85	9.82	10.05	9.20	9.10	8.90	8.65	9.20	9.40	11.20	12.00
Austria	6.25	6.50	7.50	6.38	5.75	5.25	5.63	6.13	6.50	6.25	6.38
Belgium	12.25	11.25	10.63	9.50	9.31	9.13	8.75	8.50	9.63	9.88	9.75
Denmark	9.00	6.00	6.00	5.00	5.00	7.00	7.00	7.00	7.00	7.00	7.00
Finland	4.25	5.25	5.25	4.75	4.75	4.75	4.75	4.75	4.75	4.25	4.25
France	8.24	7.66	7.04	6.69	6.49	6.44	6.27	6.07	6.12	6.03	n.a.
Germany	6.00	5.90	5.25	4.45	4.25	4.25	4.55	4.45	4.40	4.25	4.25
Ireland	15.25	11.75	14.63	10.00	10.00	9.50	9.88	10.25	11.87	15.25	16.00
Italy	13.25	13.25	11.64	10.86	10.86	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Netherlands	5.38	6.13	5.69	6.00	5.69	5.69	6.19	5.81	5.81	5.69	5.75
Norway	13.50	12.75	12.75	12.25	12.00	12.00	12.00	12.00	12.00	12.25	12.25
Portugal	15.00	21.50	28.00	27.00	24.00	24.00	24.00	20.00	20.00	20.00	n.a.
Spain	12.53	12.62	11.64	10.55	10.49	10.42	10.20	9.90	9.64	9.61	n.a.
Sweden	12.15	11.70	11.45	14.95	14.61	13.90	14.08	12.71	12.18	12.45	11.45
Switzerland	3.00	3.50	4.50	4.63	4.38	4.25	4.50	3.75	4.50	4.25	3.94
United Kingdom	10.31	9.31	9.88	11.06	11.31	11.28	11.44	11.38	11.75	12.75	12.13
Australia	10.20	10.40	12.75	14.80	15.89	16.76	16.20	17.76	18.80	18.63	17.44
Japan	7.00	6.40	6.38	6.35	6.41	6.43	7.32	7.93	7.05	6.24	6.10
New Zealand	16.50	11.50	15.25	24.50	25.00	23.00	24.50	21.25	n.a.	n.a.	n.a.
South Africa	15.25	20.13	22.88	18.50	17.25	16.00	15.00	13.20	n.a.	12.70	12.65
Argentina*	8.50	14.50	31.23	7.00	7.00	5.30	4.80	5.25	5.40	5.40	4.75
Brazil	21.00	23.00	27.00	23.00	23.00	18.00	17.00	16.00	18.00	18.00	18.50
Chile	47.09	20.57	20.68	29.20	n.a.	15.08	16.79	18.25	20.68	18.25	18.25
Hong Kong	9.25	14.88	8.25	5.31	6.00	5.63	6.00	6.50	6.50	6.63	6.81
Korea	7.60	7.60	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Malaysia	8.40	7.75	9.58	8.17	8.17	8.17	7.00	7.00	7.00	7.00	7.00
Mexico	52.54	57.15	47.45	64.35	65.20	65.80	66.80	69.60	72.90	73.60	75.75
Philippines	14.10	14.96	31.01	18.60	17.35	14.26	12.45	12.42	12.34	11.66	n.a.
Singapore	8.25	7.44	6.13	4.88	4.51	6.38	5.81	5.01	5.26	5.01	5.01
Taiwan	7.50	7.00	6.50	3.00	6.00	5.75	5.75	5.25	5.25	5.25	5.75
Thailand	10.00	10.00	13.00	10.50	10.00	10.50	10.50	10.50	10.50	10.50	11.00
Venezuela	15.50	12.00	12.50	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00

*Percent per month.

Domestic government bond yields

long-term issues, at or near end of month

	1982	1983	1984	1985						1986	
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
United States	10.61	12.00	11.61	10.91	10.63	10.67	10.62	10.06	9.49	9.45	8.31
Canada	11.69	12.02	11.66	10.91	10.79	10.96	10.72	10.34	10.04	10.49	9.96
Austria	8.81	8.02	8.04	7.77	7.58	7.34	7.38	7.55	7.61	7.62	7.68
Belgium	12.66	11.89	11.56	10.50	10.59	10.42	9.65	9.43	9.60	9.62	9.38
Denmark	20.14	12.96	14.60	10.76	10.72	11.23	10.79	10.50	9.67	10.12	n.a.
Finland	10.64	11.16	10.73	10.48	10.42	10.35	10.36	10.50	10.58	9.74	9.96
France	15.40	13.96	12.70	11.87	11.96	11.97	11.59	11.22	11.33	10.79	10.10
Germany	7.90	8.38	7.17	6.88	6.52	6.55	6.90	6.91	6.57	6.64	6.32
Ireland	14.54	14.25	14.90	11.20	11.74	11.92	11.84	12.10	11.84	11.92	10.68
Italy	19.70	17.69	14.52	14.08	14.04	13.74	13.73	13.70	13.67	13.46	13.83
Netherlands	8.16	8.58	7.72	7.23	6.92	6.87	7.03	7.01	6.96	6.81	6.84
Norway	13.32	12.50	12.00	12.70	12.70	12.70	12.70	12.70	13.10	13.10	13.20
Portugal	16.63	22.11	22.23	20.34	20.14	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Spain	15.46	17.25	13.93	14.48	14.37	13.92	12.58	12.12	12.30	12.35	12.36
Sweden	13.01	12.30	12.04	12.98	13.22	13.54	13.40	13.10	12.11	12.23	11.60
Switzerland	4.23	4.53	4.60	4.80	4.69	4.66	4.57	4.53	4.42	4.47	4.31
United Kingdom	10.62	9.94	10.25	10.16	10.22	10.15	10.16	10.17	10.35	10.56	9.83
Australia	13.00	13.65	13.50	13.30	13.95	13.80	14.55	15.05	14.85	14.10	13.59
Japan	7.96	7.45	6.36	6.38	6.46	6.36	6.55	6.84	6.10	6.10	5.30
New Zealand	12.84	10.50	16.90	17.86	17.80	18.35	18.10	17.00	n.a.	n.a.	n.a.
South Africa	11.31	13.64	16.55	15.90	16.20	16.65	17.50	17.50	n.a.	17.57	17.30
Philippines	13.64	14.47	18.54	13.29	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Venezuela	15.00	13.50	14.00	12.00	12.00	12.00	12.00	12.00	12.00	12.25	12.00

Commercial bank lending rates to prime borrowers

at or near end of month

	1982	1983	1984	1985						1986	
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
United States	11.50	11.00	10.75	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50
Canada	12.50	11.00	11.25	10.50	10.25	10.25	10.00	10.00	10.00	11.50	13.00
Austria	11.75	9.25	9.25	9.25	9.25	9.25	9.00	9.00	9.00	9.00	9.25
Belgium	15.50	13.75	14.00	12.00	12.50	12.00	11.50	11.00	11.50	12.25	12.25
Denmark	14.00	10.00	10.50	9.50	9.50	8.50	8.50	8.50	8.50	8.50	8.50
Finland	8.95	10.18	10.68	10.40	10.43	10.42	10.43	10.40	10.37	9.90	n.a.
France	12.25	12.25	12.00	10.85	10.85	10.85	10.85	10.60	10.60	10.60	n.a.
Germany	8.75	7.75	7.75	7.75	7.25	7.25	7.25	7.25	7.25	7.25	7.25
Ireland	16.50	13.75	15.75	13.25	13.50	12.50	12.50	12.50	12.50	14.50	17.50
Italy	20.75	18.75	18.00	17.00	17.00	17.00	16.50	16.00	n.a.	n.a.	n.a.
Netherlands	6.25	7.00	6.25	7.25	6.25	6.25	6.38	6.50	6.25	6.25	6.38
Norway	14.50	13.50	13.00	12.90	13.10	12.70	12.90	12.80	12.40	13.50	14.00
Portugal	23.50	30.00	29.00	29.00	26.50	26.50	26.50	22.50	22.50	22.50	n.a.
Spain	16.90	17.31	15.84	15.53	15.49	15.36	14.98	14.80	14.75	14.66	14.51
Sweden	15.00	13.50	14.50	15.25	15.25	15.25	14.75	14.75	15.05	14.00	14.00
Switzerland	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
United Kingdom	10.00	9.00	9.50	11.50	11.50	11.50	11.50	11.50	11.50	12.50	12.50
Australia	15.00	12.75	14.00	17.75	17.75	18.50	18.50	19.50	21.00	20.60	20.50
Japan	6.28	5.89	5.70	5.69	5.69	5.69	5.69	5.70	5.75	5.70	5.66
New Zealand	13.00	11.00	14.00	24.00	22.00	23.00	22.50	21.50	n.a.	n.a.	n.a.
South Africa	18.00	20.00	24.00	21.00	21.00	19.50	17.50	16.50	16.50	15.50	15.50
Argentina*	9.00	15.50	32.05	8.50	9.00	5.75	5.60	7.25	7.30	7.00	6.40
Brazil	23.81	24.00	31.00	24.56	24.50	19.00	18.00	17.00	19.00	19.00	19.50
Chile	64.11	30.90	60.82	51.47	n.a.	35.53	32.36	31.88	33.34	33.46	35.77
Hong Kong	10.50	13.50	11.00	6.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Indonesia	22.00	19.75	23.50	20.75	20.25	19.50	19.00	19.00	18.75	18.50	20.00
Korea	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Malaysia	12.50	11.00	12.00	11.00	11.00	11.00	10.50	10.50	10.50	10.50	10.50
Mexico	46.12	56.44	47.54	57.00	59.06	60.98	62.29	63.39	65.66	68.55	70.30
Philippines	18.00	18.00	44.00	27.00	23.00	n.a.	n.a.	15.50	n.a.	n.a.	n.a.
Singapore	9.33	8.98	9.40	8.03	7.28	7.20	7.23	7.20	7.20	7.20	7.20
Taiwan	10.75	10.25	10.00	10.00	10.00	9.75	9.75	9.50	9.50	9.50	9.50
Thailand	16.00	16.00	16.50	16.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50
Venezuela	17.00	16.00	16.00	14.00	14.00	14.00	14.00	13.00	13.00	13.00	13.00

*Percent per month.

Domestic corporate bond yields

long-term issues, at or near end of month

	1982	1983	1984	1985						1986	
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
United States	11.75	12.63	12.25	11.65	11.38	11.50	11.25	10.75	10.15	10.38	9.00
Canada	12.74	12.89	12.42	11.62	11.49	11.56	11.26	10.98	10.74	12.08	12.95
France	15.86	14.35	12.94	12.06	12.17	12.36	12.03	11.84	11.65	11.35	n.a.
Germany	8.20	3.30	7.20	7.10	6.90	6.80	6.90	7.00	6.90	6.80	6.80
Netherlands	7.80	8.51	7.51	7.28	7.28	n.a.	n.a.	n.a.	n.a.	n.a.	6.86
Norway	14.13	13.25	12.75	13.50	13.50	13.50	13.50	13.50	14.00	14.00	14.00
Spain	17.10	20.07	18.32	16.27	16.37	16.47	15.81	15.80	14.92	14.87	14.82
Sweden	13.37	12.21	12.33	13.25	13.25	13.50	14.00	13.50	13.25	13.21	12.73
Switzerland	5.80	4.92	5.09	5.09	5.05	5.02	4.99	4.99	4.93	4.78	4.71
United Kingdom	12.34	11.57	11.64	11.22	11.22	11.17	11.14	11.18	11.47	11.59	10.88
Japan	7.55	7.09	6.21	6.55	6.46	6.36	6.26	7.56	6.90	6.70	5.69
Korea	16.00	14.20	15.00	14.10	13.90	13.80	13.70	13.60	13.60	13.00	12.60
Venezuela	18.00	18.00	18.00	17.00	17.00	17.00	17.00	17.00	17.00	17.50	17.00